

ABSTRACT

For manufacturing the electric conductor (21), workpieces are formed, each of which has a core (3) which is enclosed in cross-section by at least one electrically conducting sheath (4, 6) and a casing (5) which consists at least partly of at least one metal-oxygen compound, for example barium zirconate (BaZrO_3). The workpieces are gathered into a bundle, lengthened together by plastic deformation and subjected to at least one heat treatment in an oxygen-containing environment. During the heat treatment or the heat treatments, the material forming the cores (3) is converted into a superconducting phase without the superconducting properties of the cores (3) being adversely affected by the casing material. The casings (5) are electrically insulating or have at least a substantially higher specific electrical resistance than the sheaths (4) and, during the use of the conductor (21), counteract the formation of eddy current coupling losses.

(Fig. 4)